

ABSTRACT OF THE DISCLOSURE

A method of inspecting a heat exchanger including a plurality of tubes having ends fixed in a tubesheet includes the steps of: establishing a baseline for each tube of its location in the tubesheet and its unique eddy current pattern resulting, at least in part, from fixing the tube end in the tubesheet; inserting an eddy current probe into a first identified tube; obtaining eddy current data for the first identified tube in the region of the tubesheet; comparing the eddy current data obtained for the first identified tube with the baseline eddy current data for the tube, in order to verify the correctness of the tube identification; and accepting the obtained eddy current data if the correctness of the tube identification has been verified by the comparison. A computer program product for automatically carrying out the steps of the foregoing method is also disclosed.